

### REMARKS

Reconsideration of the application is respectfully requested.

Claims 1 and 9 are being combined, thereby specifying in more detail the composition of the hydrocarbon reforming layer. Claim 1 is also being re-structured in order to present the characteristics of the hydrocarbon reforming layer more clearly. The same changes are being made to claim 15.

With reference to the numbered paragraphs of the Office Action:

1. No comment is believed to be necessary.

2-3. Claims 1, 2, 6, 7 and 13 have been rejected under 35 USC 102(b) as being anticipated by JP 9-073913. Applicant does not necessarily agree with the Examiner's analysis. However, in order to advance prosecution, claim 1 is being amended to incorporate the subject matter of claim 9 therein. No objection has been raised against claim 9. Claim 15 is being amended for conformity with the amendment made to claim 1.

4. Claims 1, 2, 4, 6-8 and 10-12 have been rejected under 35 USC 102(b) as being anticipated by JP 5-067472. Applicant does not necessarily agree with the Examiner's analysis. However, in order to advance prosecution, claims 1 and 9 are being combined. It is noted that claim 9 has not been rejected. Claim 15 has been amended for consistency with claim 1.

5-6. Claim 9 has been rejected under 35 USC 103(a) as being unpatentable over JP 5-067472. Reconsideration and withdrawal of the rejection are requested.

It is submitted that on reading the Japanese '472 publication that has been cited, one skilled in the art would actually be motivated to exclude YSZ from the hydrocarbon reforming layer, and indeed this is exactly what has been done in the Japanese patent. Specifically, in the Japanese patent there has been complete substitution of YSZ by substrates widely used in steam forming catalysts. The Japanese publication teaches that the acidic nature of YSZ contributes to carbon formation during hydrocarbon reforming (see paragraph 0008). By implication, the point

being stressed is that it is not advisable or recommended to include YSZ in the reforming layer as it will lead to carbon formation. This problem is solved by complete substitution of YSZ by a basic compound. Thus, the Japanese patent teaches not to include "acidic" YSZ in the hydrocarbon reforming layer.

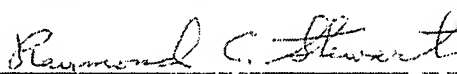
In contrast, in accordance with the present invention, the hydrocarbon reforming layer is a nickel-zirconia cermet and the potential problems of carbon deposition are avoided by including a component, or a precursor of such a component, for alleviating carbon deposition on the hydrocarbon reforming layer. Thus, the contribution of carbon formation from the acidic nature of YSZ can be overcome by incorporation of a suitable component or component precursor. It is submitted that the approach adopted in the present invention is fundamentally different from the approach adopted in the Japanese publication cited by the Examiner. In the circumstances, reconsideration and withdrawal of the rejection are believed to be in order.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Raymond C. Stewart Reg. No. 21,066 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By   
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